ENERGY SOURCES

Volume 24 Tables of Contents

Volume 24, Issue 1

Combustion Kinetics of Crude Oils
Mustafa Versan Kok 1

Personal Computer Application of Well Test Analysis Techniques
Serhat Akin and Mustafa Versan Kok 9

Energy and Environmental Correlation for Renewable Energy Systems in India
Jyotirmay Mathur, Narendra Kumar Bansal, and Hermann-Joseph Wagner 19

Sustainable Developments of Hydropower Energy in Turkey
Ayhan Demirbaş 27

Comparison Between Two-Stage Waste Combustion with HCl Recovery and Conventional Incineration Plants
Loay Saeed and Ron Zevenhoven 41

Hydrogen Production from Biomass by the Gasification Process
Ayhan Demirbaş 59

Mineral Matter in the Philippi Peat in Relation to Peat/Lignite-Forming Conditions in Greece
Stavros Kalaitzidis and Kimon Christanis 69

Environmentally Important Elements in Fly Ashes and Their Leachates of the Power Stations of Greece
Andreas Georgakopoulos, Anestis Filippidis, Anna Kassoli-Fournaraki, Andreas Iordanidis, Jose-Luis Fernández-Turiel, Jose-Francisco Llorens, and Domingo Gimeno 83

Volume 24, Issue 2

Heavy Crude Oil Viscosity Reduction for Pipeline Transportation
Basma M. Yaghi and Ali Al-Bemani 93

Leachability of Major and Trace Elements of Fly Ash from Ptolemais Power Station, Northern Greece
Andreas Georgakopoulos, Anestis Filippidis, Anna Kassoli-Fournaraki, Jose-Luis Fernández-Turiel, Jose-Francisco Llorens, and Francis Mousty 103

Incineration of Municipal Solid Waste with Electricity Production and Environmental Safety: The Case of a Small Capacity Unit in Greece
A. Zabaniotou and N. Giannoulidis 115

Humic Acid Derivatives (HAD) from Low Rank Turkish Brown Coals
Ayhan Demirbas 127

Oil Shale: Pyrolysis, Combustion, and Environment: A Review
Mustafa Versan Kok 135

Numerical Investigations on the Transport Properties of Fractally Fractured Media
I. S. Jang, J. M. Kang, J. Choe, H. W. Park, and D. G. Huh 145

Rheological Behavior of Coal-Water Slurry
S. K. Mishra, P. K. Senapati, and D. Panda 159

Present Status of Cogeneration Applications in Turkey
Arif Hepbasli and Nesrin Ozalp 169

Book Reviews 179

Volume 24, Issue 3

A Novel Plasma Technique to Stimulate Tight Carbonate Rocks
Muftah H. El-Naas and Abdulrazag Y. Zekri 181

Development of Cogeneration in Turkey
Arif Hepbasli and Nesrin Ozalp 195

Utilization of Urban and Pulping Wastes to Produce Synthetic Fuel via Pyrolysis
Ayhan Demirbaş 205

Fuel Characteristics of Olive Husk and Walnut, Hazelnut, Sunflower, and Almond Shells
Ayhan Demirbaş 215

Sensitivity Analysis of Horizontal Well Productivity Under Steady-State Conditions
Shedid A. Shedid and Abdulrazag Y. Zekri 223

Modelling Analysis for the Carbonylation Stage of Two-Step Methanol Synthesis
Wensheng Linghu, Zhenyu Liu, Bing Zhong, and Yongwang Li 239

Computer Simulation and Visualization of the Thermodynamic Properties of Steam and Steam Processes
M. H. Barakat 247

Source Rock Potential and Tectonic Effect on the Regional Maturity on the Central Taurus Region, SW Turkey: New Exploration Targets
Turhan Ayyıldız 263

Biomass to Bio-Oil via Fast Pyrolysis of Cotton Straw and Stalk
Ayşe Eren Pütün 275

Volume 24, Issue 4

An Inverse Channel Model for Modeling Contaminant Transport
Minchul Jang, Jonggeun Choe, and Joe M. Kang 287

Synthesis of Methyl Acetate from Dimethyl Ether Using Group VIII Metal Salts of Phosphotungstic Acid
Abhay Sardesai, Sunggyu Lee, and Timothy Tartamella 301

Overview of NO_x Emission Controls in Marine Diesel Engines
Ismail Deha Er 319

Rapeseed Cake as a Biomass Source
Esin Çulcuoğlu, Elif Ünay, and Filiz Karaosmanoğlu 329

Analysis of Liquid Products from Biomass via Flash Pyrolysis
Ayhan Demirbaş 337

Pyrolysis of Pine (*Pinus Brutia* Ten.) Chips: 1. Effect of Pyrolysis Temperature and Heating Rate on the Product Yields
Sevgi Şensöz and Mukaddes Can 347

Pyrolysis of Pine (*Pinus Brutia* Ten.) Chips: 2. Structural Analysis of Bio-oil
Sevgi Şensöz and Mukaddes Can 357

Thermodynamic and Economic Analysis of a Steam Reformer–Solid Oxide Fuel Cell System Fed by Natural Gas and Ethanol
Savvas Douvartzides and Panagiotis Tsiakaras 365

Chemical Analysis and Fuel Properties of Oils from Oilseeds by Supercritical Fluid Extraction
Necmettin Yılmaz, Hayati Sarı, and Ayhan Demirbaş 375

Volume 24, Issue 5

Review of Biomass Energy in Turkey
K. Kaygusuz and M. F. Türker 383

Thermochemical Conversion of Residual Biomass to Hydrogen for Turkey
Yusuf Sürmen and Ayhan Demirbaş 403

Bacteria for Improvement of Oil Recovery: A Laboratory Study
K. Behlülgil and M. T. Mehmetoğlu 413

Hydropyrolysis of Extracted *Euphorbia rigida* in a Well-Swept Fixed-Bed Tubular Reactor
Hasan Ferdi Gerçel, Ayşe Eren Pütün, and Ersan Pütün 423

The Effects of Diesel-Ethanol Blends on Diesel Engine Performance
Atilla Bilgin, Orhan Durgun, and Zehra Şahin 431

End Effect Evaluation in Rheological Measurement of Drilling Fluids Using Coutte Coaxial Cylinder Viscometer
İ. Hakki Gücüyener, Mustafa Versan Kok, and Taner Batmaz 441

Fast Pyrolysis of Sunflower-Pressed Bagasse: Effects of Sweeping Gas Flow Rate
Hasan Ferdi Gerçel and Ersan Pütün 451

Evaluation of Hydrocarbon Source Rock Potential from Well Data on the Elmali Nappes, Western Taurus Region, Turkey
Ismail Hakki Demirel, Yilmaz Gunay, and Tugrul Sukru Yurtsever 461

An Overview of Biomass Pyrolysis
Ayhan Demirbaş and Gönenç Arın 471

Volume 24, Issue 6

Energy and Sustainable Development in Turkey. Part I: Energy Utilization and Sustainability
Kamil Kaygusuz and Abdullah Kaygusuz 483

Numerical Study for Production Performances of a Methane Hydrate Reservoir Stimulated by Inhibitor Injection
Wonmo Sung, Hoseob Lee, Huen Lee, and Chulsoo Lee 499

A Chemical Kinetics Study of Oxygen-Enriched CO/H_2/Air Flames
D. S.-K. Ting and C. Uykur 513

Development of a FEM Reservoir Model Equipped with an Effective Permeability Tensor and its Application to Naturally Fractured Reservoirs
Y. C. Park, W. M. Sung, and S. J. Kim 531

Potential of Extremophiles for Biotechnological and Petroleum Applications
M. S. A. Tango and M. R. Islam 543

Environmental Effects of Lignite and Intermediate Steriles Coexcavation in the Southern Lignite Field Mine of Ptolemais, Northern Greece
Nestoras Kolovos, Andreas Georgakopoulos, Anestis Filippidis, and Constantinos Kavouridis 561

Clean and Direct Production of Acetylene—Coal Pyrolysis in a H_2/Ar Plasma Jet
Honggang Chen and Kechang Xie 575

Catalytic Decarboxylation of Elbistan Lignite
Sümer Özvatan and Yuda Yürüm 581

Volume 24, Issue 7

Robust Control for a Gas Turbine in Biomass-Based Electric Power Plants
Francisco Jurado Melguizo, Manuel Ortega, and Antonio Cano 591

Fuel Properties of Hydrogen, Liquefied Petroleum Gas (LPG), and Compressed Natural Gas (CNG) for Transportation
Ayhan Demirbaş 601

A Technical Note on "Modeling of Gas Demand Using Degree-Day Concept: Case Study for Ankara"
Haydar Aras 611

Thermal Conductivity of Oil Shale Particles in a Packed Bed
Yahya H. Khraisha 613

Biodesulfurization of Mengen Lignite with *Rhodoccocus rhodochrous*: Effects of Lignite Concentration and Retreatment
Zafer Bayram, Tijen Bozdemir, Tülay Durusoy, and Yuda Yürüm 625

The Effect of a Sweeping Gas Flow Rate on the Fast Pyrolysis of Biomass
Hasan Ferdi Gerçel 633

The Effect of Lime Addition on the Combustion Properties and Sulfur Contents of Three Different Coals
Kazim Esber Ozbas, Cahit Hiçyilmaz, and Mustafa Versan Kok 643

Depositional Environments of Oligo/Miocene Coal-Bearing Strata and Coal Quality from the Oltu-Balkaya Basin, Northeastern Turkey
Alı Ihsan Karayıgıt, İ. Erdal Kerey, and Cevdet Bozkuş 653

Pyrolysis of Polystyrene Plastic Wastes with Some Organic Compounds for Enhancing Styrene Yield
Ali Karaduman 667

The Effect of Moisture on the Liquefaction of Some Turkish Coals in Tetralin with Microwave Energy
Emir H. Şimşek, Ali Karaduman, and Taner Togrul 675

Deflection Criteria for Numerical Assessment of the Sand Production Potential in an Openhole Completion
A. Nouri, M. M. Al-Darbi, H. Vaziri, and M. R. Islam 685

Volume 24, Issue 8

Mineralogy and Elemental Contents of the Sirnak Asphaltite, Southeast Turkey
Ali Ihsan Karayigit and Xavier Querol 703

Evaluation of Hydraulic Fracturing Pressure in a Porous Medium by Using the Finite Element Method
A. Nouri, A. Komak Panah, A. Pak, H. Vaziri, and M. R. Islam 715

Paleocene Volcano-Clastic Sequences in the Tuz Gölü Basin, Central Anatolia, Turkey: An Evolution of Petroleum Reservoir Rock Properties Using Logs
Turhan Ayyildiz 725

Comparison of Total Horizontal Solar Radiation Measurements with Some Existing Models for Turkey
Mustafa Güneş 735

Effect of the Use of a Gas Motor in a Biomass-Based Electric Power Plant
Francisco Jurado, Manuel Ortega, and Antonio Cano 743

Effects of Heating Rate and Particle Size on Pyrolysis Kinetics of Gediz Lignite
Yılser Güldoğan, Tülay Durusoy, Tijen Bozdemir 753

The Effects on the Mined Lignite Quality Characteristics by the Intercalated Thin Layers of Carbonates in Ptolemais Mines, Northern Greece
Nestoras Kolovos, Andreas Georgakopoulos, Anestis Filippidis, and Constantinos Kavouridis 761

Prediction of Solar Radiation Parameters Through Clearness Index for Izmir, Turkey
Koray Ulgen and Arif Hepbasli 773

Renewable Energy Sources: The Key to a Better Future
Kamil Kaygusuz 787

Call for Papers 801

Volume 24, Issue 9

Sustainable Development of Hydroelectric Power
Kamil Kaygusuz 803

Fractionation and Analysis of Supercritical Fluid Extracts from Lignite
Gönenç Arin and Ayhan Demirbaş 817

A Kinetic Method to Calculate the Amount of Hydrocarbon Generated from Kerogen
Shuyuan Li, Shaohui Guo, and Jialin Qian 825

Diesel Fuel from Vegetable Oil via Transesterification and Soap Pyrolysis
Ayhan Demirbaş 835

Energetic Utilization of Used Tires
A. Zabaniotou, J. Lagoudakis, E. Toumanidou, and G. Stavropoulos 843

Simple Correlations for Estimating the Energy Production of Turkey
Arif Hepbasli, Galip Oturanc, Aydin Kurnaz, Erkan Ergin, Asir Genc, and Neslihan Iyit 855

Comparison of Hydrous Pyrolysis Products from Organic-Rich Sediments and Biomass
Ayhan Demirbaş 869

Seismic Techniques of Enhanced Oil Recovery: Experimental and Field Results
O. L. Kuznetsov, E. M. Simkin, G. V. Chilingar, M. V. Gorfunkel, and J. O. Robertson, Jr. 877

Utilization of Lignin Degradation Products from Hazelnut Shell via Supercritical Fluid Extraction
Ayhan Demirbaş 891

Volume 24, Issue 10

An Investigation into the Thermal Behavior of Coals
Mustafa Versan Kok 899

Thermogravimetry of Selected Bentonites
Mustafa Versan Kok 907

Effect of Axial Stresses on Reservoir Rocks
Mustafa Versan Kok, A. Gurkan Iscan, and E. Buket Ulker 915

Production Potential of Electricity from Biomass in Turkey
Ayhan Demirbaş 921

Effect of Heating Rate on Pyrolysis Kinetics of Göynük Oil Shale
Levent Değirmenci and Tülay Durusoy 931

Geothermal Energy: Power for a Sustainable Future
Kamil Kaygusuz and Abdullah Kaygusuz 937

Evaluation of Aegean Region Agro-Industrial Wastes as a Potential Energy Source
R. Cengiz Akdeniz, Fazilet Vardar-Sukan, and Arif Hepbasli 949

Numerical Study on the Effect of Fracture Characteristics on Flow and Solute Transport in a Fractured Medium
Choongyong Han, Joe M. Kang, and Jonggeun Choe 961

Volume 24, Issue 11

Some Hydrodynamic Models for Studying the Displacement of One Liquid by Another. Part I. Cylindrical Flow
J. A. Reyes and J. Cruz-Hernández 977

Some Hydrodynamic Models for Studying the Displacement of One Liquid by Another. Part II. Flow Within a Wedge
J. A. Reyes and J. Cruz-Hernández 985

A New Theory and Methodology for Modeling Sand During Oil Production
A. Nouri, H. Vaziri, M. M. Al-Darbi, and M. R. Islam 995

Control of Microbial Corrosion Using Coatings and Natural Additives
M. M. Al-Darbi, Z. M. Muntasser, M. Tango, and M. R. Islam 1009

The Inhibitive Characteristics of Mixed Inhibitor Combinations Under Heat and Mass Transfer Conditions
M. M. Al-Darbi, A. Nouri, M. R. Islam, and A. A. Jaralla 1019

A Novel Method for Arsenic Removal at Low Concentrations
N. M. Wasiuddin, M. Tango, and M. R. Islam 1031

A Novel Method for Heavy Metal Removal
S. Mustafiz, A. Basu, M. R. Islam, A. Dewaidar, and O. Chaalal 1043

Announcement of Expanded Scope 1053

Volume 24, Issue 12

Solar Energy Potential in Turkey
R. Tuğrul Oğulata and S. Noyan Oğulata 1055

The Effects on the Lignite Ash Quality Characteristics by the Coexcavated Thin Intercalations in Ptolemais Mines, Northern Greece
N. Kolovos 1065

Sedimentological and Petrographical Characteristics of Coal and Oil Shale Bearing Strata from the Ilısılık Region, Central Anatolia, Turkey
Mehmet Şener and İlker Şengüler 1081

Study of Coal Conversion in an Arc Plasma Jet
Ke-Chang Xie, Yong-Kang Lu, Ya-Jun Tian, and Da-Zhi Wang 1093

Desulfurization of Coal Using Biomass Ash
Ayhan Demirbaş 1099

Turkey's Geothermal Energy Potential
Ayhan Demirbaş 1107

Current Status and Future Directions of Wind Energy Applications in Turkey
Onder Ozgener and Arif Hepbasli 1117

Statistical Analysis of Solar Radiation Data Using Cubic Spline Functions
Aşir Genç, İsmail Kınacı, Galip Oturanç, Aydın Kurnaz, Şefik Bilir, and Necdet Özbalta 1131

Book Reviews
Climate Change Policy: A Survey 1139
Energy Efficient Buildings: Architecture, Engineering, and Environment 1139

Author Index to Volume 24

Akdeniz Cengiz, R., 949
Akin, S., 9
Al-Bemani, A., 93
Al-Darbi, M. M., 685, 995, 1009, 1019
Aras, H., 611
Arin, G., 471, 817
Ayyildiz, T., 263, 725

Bansal, N. K., 19
Barakat, M. H., 247
Batmaz, T. 441
Bayram, Z., 625
Behlülgil, K., 413
Bilgin, A., 431
Bilir, Ş., 1131
Bozdemir, T., 625, 753
Bozkus, C., 653

Can, M., 347, 357
Cano, O., 591, 743
Cano, A., 591, 743
Chen, H., 575
Chillingar, G. V., 877
Choe, J., 145, 287, 961
Christanis, K., 69
Cruz-Hernández, J., 977, 985
Çulcuoğlu, E., 329

Değirmenci, L., 931
Deha, I., 319
Demiral, I. H., 461
Demirbaş, A., 27, 59, 127, 205, 215, 337, 375, 403, 471, 601, 817, 869, 921, 1099, 1107
Douvartzides, S., 365
Durgun, O., 431
Durusoy, T., 625, 753, 931

El-Naas, M. H., 181
Erkan, E., 855

Fernández-Turiel, J.-L., 83, 103
Filippidis, A., 83, 103, 561, 761

Genç, A., 855, 1131
Georgakapoulos, A., 83, 103, 561, 761
Gerçel, H. F., 423, 451, 633
Giannoulidis, N., 115
Gimeno, D., 83
Gorfunkel, M. V., 877
Gücüyener, I. H., 444
Guldogan, Y., 753, 877
Gunay, Y., 461
Gunes, M., 735
Guo, S., 825

Han, C., 961
Hepbasli, A., 169, 195, 773, 855, 949, 1117
Hiçyilmaz, C., 643
Huh, D. G., 145
Iordanidis, A., 83
Iscan, A. G., 915
Islam, M. R., 543, 685, 715, 995, 1009, 1019, 1031, 1043
Iyit, N., 855

Jang, I. S., 145
Jang, M., 287
Jurado, F., 743

Kalaitzidis, S., 69
Kang, J. M., 145, 287, 961
Karaduman, A., 667, 675
Karaosmanoğlu, F., 329
Karayigit, A. I., 653, 703
Kassoli-Fournaraki, A., 83, 103
Kavouridis, C., 561, 761
Kaygusuz, K., 383, 483, 787, 803, 835, 937
Kaygusuz, A., 483, 937
Kerey, I. E., 653
Khraisha, Y. H., 613
Kok, M. V., 1, 9, 135, 441, 643, 899, 907, 915
Kolovos, N., 531, 761, 1065
Kurnaz, A., 855, 1131
Kuznetsov, O. L., 877

Lagoudakis, J., 843
Lee, Ho., 491
Lee, Hu., 491
Lee, C., 491
Lee, S., 301
Li, S., 825
Li, Y., 239
Liu, Z., 239
Llorens, J.-F., 83, 103
Lu, Y.-K., 1093

Mathur, J., 19
Mehmetoğlu, M. T., 413
Melguizo, F. J., 591
Mishra, S. K., 159
Mousty, F., 103

Nouri, A., 685, 715, 995, 1019

Oğulata, R. T., 1055
Oğulata, S. T., 1055
Ortega, M., 591, 743
Oturanç, G., 855, 1131
Ozalp, N., 169, 195
Özbalta, N., 1131
Ozbas, K. E., 643
Ozgener, O., 1117
Ozvatan, S., 581

Pak, A., 715
Panah, A. K., 715
Panda, D., 159
Park, H. W., 145
Pütün, A. E., 275, 423
Pütün, E., 423, 451

Qian, J., 825
Querol, X., 703

Reyes, J., 977, 985
Robertson Jr., J. O., 877

Saeed, L., 41
Şahin, Z., 431
Sardesai, A., 301
Sari, H., 375

Senapati, P. K., 159
Şener, M., 1081
Şengüler, İ., 1081
Sensoz, S., 347, 357
Shedid, S. A., 223
Simkin, E. M., 877
Şimşek, E. H., 675
Speight, J., 179, 1139, 1141
Stavropolous, G., 843
Sung, W., 499
Sürmen, Y., 403

Tango, M. S. A., 543
Tartamella, T., 301
Tian, Y.-J., 1093
Ting, D. S. K., 513
Togrul, T., 675
Toumandiou, E., 843
Tsiakaras, P., 365
Türker, M. F., 383

Ulgen, K., 773
Ulker, E. B., 915
Ünay, E., 329

Vardar-Sulkan, F., 949
Vaziri, H. 685, 715, 995

Wagner, H.-J., 19
Wang, D.-Z., 1093

Xie, K., 575, 1093

Yilmaz, N., 375
Yurtsever, T. S., 461
Yurum, Y., 581, 625

Zabantiou, A., 115, 843
Zekri, A. Y., 181
Zevenhoven, R., 41
Zhong, B., 239